Oct. 28, 1924. 1,513,018

D. D. TRACY

APPARATUS FOR LAYING CONDUITS

Filed July 24, 1922

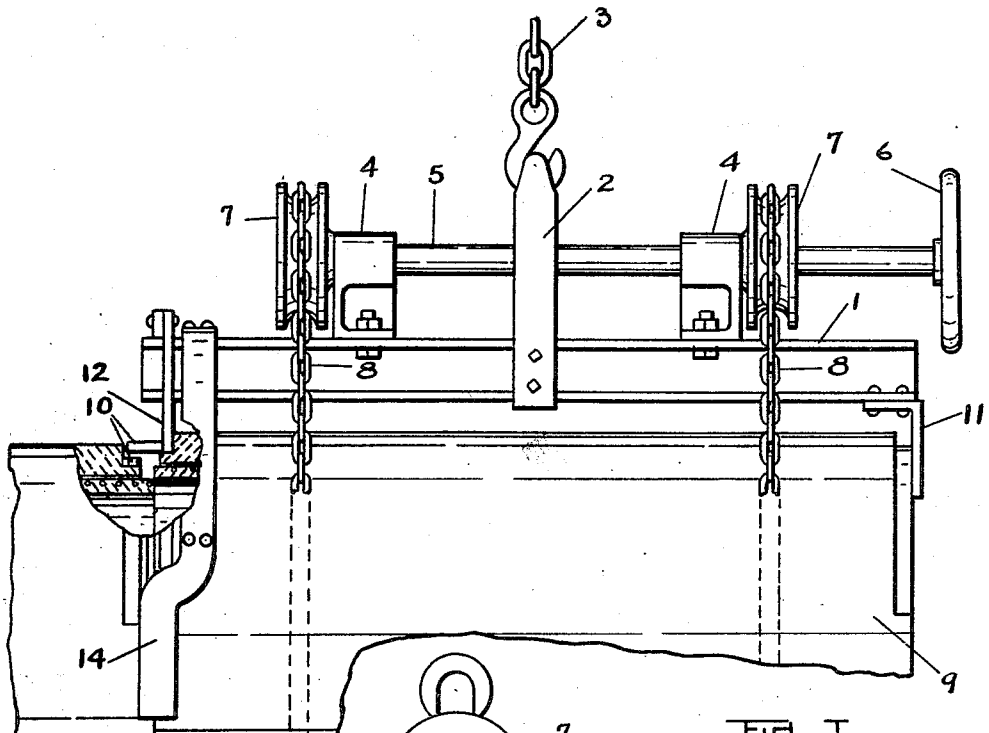


Fig. I.

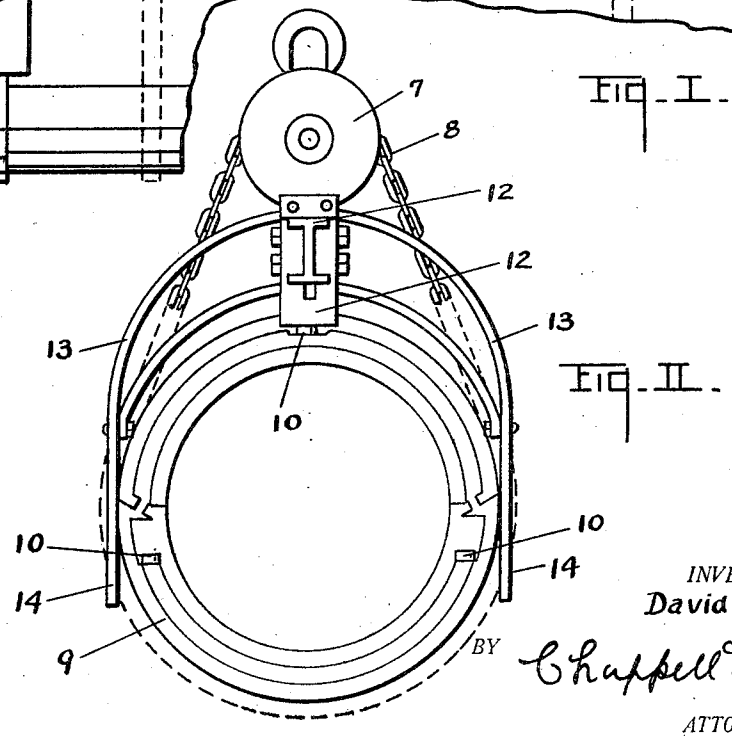


Fig. II.

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DAVID D. TRACY, OF JACKSON, MICHIGAN.

APPARATUS FOR LAYING CONDUITS.

Application filed July 24, 1922. Serial No. 577,256.

To all whom it may concern:

Be it known that I, DAVID D. TRACY, a citizen of the United States, residing at the city and county of Jackson, State of Michigan, have invented certain new and useful Improvements in Apparatus for Laying Conduits, of which the following is a specification.

This invention relates to an apparatus for laying conduits.

My improved conduit laying apparatus is especially designed by me for the laying of sectional conduit of the type shown in my Patent No. 1,396,301, dated Nov. 8, 1921, and I have illustrated my improvements as embodied or adapted for that purpose. My improvements are, however, readily adapted and desirable for use in other relations.

The main objects of the invention are:

First, to provide an apparatus for laying conduit in which conduit of large diameters, the sections of which are of considerable weight, may be laid with a minimum of manual labor.

Second, to provide an improved apparatus for the laying of conduit in which sections may be readily aligned and positioned, facilitating the effective sealing of the joints of the sections.

Third, to provide an apparatus for the laying of conduits which avoids breakage in the handling of sections formed of concrete and the like.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this application, in which:

Fig. I is a detail side view of a structure embodying the features of my invention, two sections of the conduit being illustrated in connection therewith to better show the operation.

Fig. II is an end elevation with a section of conduit suspended.

In the drawing similar reference characters refer to similar parts throughout both views.

Referring to the drawing, I provide a supporting or sling bar 1, having a central suspending arm 2 to which the hoist chain or cable 3 is connected. On the upper side of the bar 1 are bearings 4 for the shaft 5. The shaft has a hand wheel 6 at one end and is provided with pulleys 7 for the sling chains 8, the chains being adapted to pass around the section of conduit, as 9. By rotating the shaft 5 the conduit sections may be rotated, bringing its end in proper relation to a positioned section.

The conduit sections illustrated have coupling members 10 projecting from the ends thereof as is described in my said patent and also coacting grooves and recesses so that this advantage of rotatably positioning the sections is a very desirable one.

To prevent endwise swinging in the sling chains 8 I provide end arms 11 and 12, the arm 12 being adapted to engage in the groove of the section. I also provide downwardly diverging arms 13 at the one end adapted to engage the sides of the conduit section, the arms being preferably offset at 14 to engage with the sides of the adjacent laid section, thereby guiding the section into position.

With this arrangement of parts I am enabled to lay sectional conduit of large diameters and consequently of substantial weight very rapidly and safely, with a minimum of manual labor and with little likelihood of breaking or damaging the sections.

I have illustrated and described my improvements in a form which I find very practical. I have not attempted to illustrate or describe certain modifications and adaptations which I contemplate as I believe the disclosure made will enable those skilled in the art to which my invention relates to embody or adapt the same as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In an apparatus of the class described, the combination with a supporting bar having a centrally disposed upwardly projecting suspending arm and downwardly positioning projecting arms adapted to engage the ends of a section of conduit and a pair of downwardly projecting arms at one end adapted to engage the sides of a section of conduit, the lower portions of said arms be-

ing offset to engage the sides of an adjacent section to facilitate aligning the sections, a shaft journaled on said bar and provided with pulleys, and slings on said pulleys whereby the suspended section may be rotated in positioning the same.

2. In an apparatus of the class described, the combination with a supporting bar having a centrally disposed upwardly projecting suspending arm and downwardly positioning projecting arms adapted to engage the ends of a section of conduit and a pair of downwardly projecting arms at one end adapted to engage the sides of a section of conduit, a shaft journaled on said bar and provided with pulleys, and slings on said pulleys whereby the suspended section may be rotated in positioning the same.

3. In an apparatus of the class described, the combination with a supporting bar having a pair of downwardly projecting arms at one end adapted to engage the sides of a section of conduit, the lower portions of said arms being offset to engage the sides of an adjacent section to facilitate aligning the sections, a shaft journaled on said bar and provided with pulleys, and slings on said pulleys whereby the suspended section may be rotated in positioning the same.

4. In an apparatus of the class described, the combination with a supporting bar having a pair of downwardly projecting spaced arms at one end adapted to engage opposite sides of a section of conduit providing lateral supports therefor, a shaft journaled on said bar and provided with pulleys, and slings on said pulleys whereby the suspended section may be rotated between said arms for positioning the same.

5. In an apparatus of the class described, the combination with a supporting bar provided with downwardly projecting arms adapted to engage the ends and sides of a section of conduit, the side engaging arms being also adapted to engage the sides of an adjacent section to facilitate aligning the sections, a shaft journaled on said bar and provided with pulleys, and slings on said pulleys whereby the suspended section may be rotated in positioning the same.

6. In an apparatus of the class described, the combination with a supporting bar provided with downwardly projecting arms adapted to engage the ends and sides of a section of conduit, a shaft journaled on said bar and provided with pulleys, and slings on said pulleys whereby the suspended section may be rotated in positioning the same.

7. In an apparatus of the class described, the combination with a supporting bar provided with arms adapted to engage the ends of a section of conduit, said arms being also adapted to engage an adjacent section to facilitate aligning the sections, a shaft journaled on said bar and provided with pulleys, and slings on said pulleys whereby the suspended section may be rotated in positioning the same.

8. In an apparatus of the class described, the combination with a supporting bar provided with arms adapted to engage the ends and sides of a section of conduit, the side engaging arms being also adapted to engage the sides of an adjacent section to facilitate aligning the sections, and suspending slings carried by said bar.

9. In an apparatus of the class described, the combination with a supporting bar provided with arms adapted to engage opposite sides of a section of conduit providing lateral supports therefor, the side engaging arms being also adapted to engage the sides of an adjacent section to facilitate aligning the sections, and suspending slings carried by said bar.

10. In an apparatus of the class described, the combination with a supporting bar provided with downwardly projecting spaced arms adapted to engage opposite sides of a section of conduit providing lateral supports therefor, and suspending slings carried by said bar.

In witness whereof, I have hereunto set my hand and seal.

DAVID D. TRACY. [L. S.]